

in seven months, one in seven months and a half, two in eight months, and one in ten months. Of the remaining eighteen, three were living at the end of one month, two at forty days, one at seven weeks, three at two months, two at three months and a half, two at four months, one at five months, one at six months, one at seven months, one at twelve months and nine days, and one at thirteen months. The last two cases were under the charge of Mr. Walter Whitehead, of Manchester, England, who was kind enough to write me that the first could not live much longer, while the second was still enjoying excellent health.

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CERTAIN FOREIGN BODIES IN THE EYE, AND HOW TO REMOVE THEM.*

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This woman comes for an affection of the right eye, and we will ask her to tell her own story. About ten days ago, she says, while sitting by an open window, she suddenly felt a sensation in the right eye, as though some thing had "got into it." Since that time the same sensation has continued.

As we inspect the eye we see that the lids are normal, that the pupil is movable, that the eye waters some, that the cornea is apparently clear, and that the conjunctiva is slightly reddened. That is all we can see by unaided vision. Dr. Webster will now take the patient, with a few of the students, into a room convenient for examining the eye by oblique illumination, and in the meantime we will make some remarks regarding the conditions that may give rise to the symptoms of which this patient complains.

*A clinical lecture delivered at the College of Physicians and Surgeons, New York.

The play of the wind, as she sat by the open window, may have produced inflammation of the palpebral conjunctiva, and thus there would have been produced a sensation as though there was a foreign body beneath the upper eyelid.

This is one of the characteristic symptoms of conjunctivitis. But why do we have this symptom? What physical change occurs in the condition of the surface of the palpebral, or scleral conjunctiva when that membrane is injected? In the natural state of the parts the few blood-vessels which exist in the scleral conjunctiva are so nicely buried, so to speak, in the texture of the mucous membrane, and the surface is so well shingled over with smooth epithelium, that a perfectly soft velvety surface is formed without leaving any rough projections whatever. The same is true with reference to the conjunctiva that lines the lids. But when this membrane becomes injected a villous, roughened surface is formed, the papillæ become engorged and enlarged, and the pressure which this roughness exercises upon the surface of the cornea produces a sensation as if a foreign body were in the eye, and the common complaint is that "the eye feels as though dust had got into it." It is next to impossible to convince a patient, who is in the first stage of a light conjunctivitis, that there is not dust in the eye.

When a patient comes to you complaining of a sensation as if a foreign body were in the eye, you should first examine the eyeball from every point of view. You should then turn over the eyelids and examine their inner surfaces. And here I am reminded of a source of error to which I would call your attention. A few days ago a case came under my observation which illustrates the point.

The gentleman had had occasional attacks of conjunctivitis for a year or more. He had then a sensation as if a foreign body were in the eye. On turning out the right lower eyelid, all that was revealed to sight was a slight redness of the conjunctiva. But there was something in the way in which the sensation of a foreign body in the eye was exaggerated that made me suspect he had a single inverted eyelash. Ordinarily

he felt as if some irritant was there which was tolerable, but suddenly there would be a cramp-like action of the eyelid, the irritation would grow rapidly worse, and the eye fill with tears, followed by the discharge of a little mucus, and temporary relief. His beard was of a sandy color, his hair was light-brown, and his eyelashes were almost colorless. I looked very carefully along the edges of the lids in search of inverted eyelashes, and saw, on the innermost edge of the lower lid, a slight curving of the inner angle. By allowing a tear to gather upon this inner edge I saw that there was a difference in refraction in different portions of the tear, and it soon became evident that a delicate, decolorized eyelash was there, which instead of growing from the outer edge of the lid sprang from the free edge of its inner border. I turned the lid over and found that this delicate eyelash, which was between the edge of the lid and the eyeball had been so long caught in that position that it had worn a little groove in the edge of the eyelid; the spasmodic action of the orbicularis, from time to time, so long continued, had imbedded the eyelash in the substance of the lid. I removed it and no further trouble was experienced. This patient had been treated in Europe for acute conjunctivitis several times, and it is possible that the eyelash was, on those occasions, the cause of all the trouble. An operation will be required to destroy the follicle which produced the misplaced eyelash.

So, when a patient comes to you complaining of a sensation as though there were a foreign body in the eye, between the eyelids and the eyeball, you may first look for conjunctivitis. Whether this be present or not you should then proceed to examine the eye very carefully to see whether a foreign body be present or not. Scan carefully the whole surface of the cornea and of the scleral conjunctiva and then turn over the upper eyelid and carefully inspect its inner surface. You may then scrutinize the edges of the lids, as I have described, in order to see whether the source of the irritation be an inverted eyelash.

To show that a large foreign body may escape observation, I

will relate the following case: Some years ago a young man came to me, who had hanging from beneath the upper eyelid, a little fleshy mass, polypoid in character, and projecting about one twelfth of an inch below the edge of the lid. He had been under the observation of a very careful general surgeon in this city, who some months before had lifted the upper eyelid and removed a similar growth which was probably about half an inch in length; and, without giving any explanation why such a mass of granulation tissue should be growing from a source above the tarsal cartilage, the patient was dismissed. The mass again began to grow, and finally projected from beneath the upper eyelid. I was determined to trace the growth to its origin before adopting any plan of treatment. So I avoided pressing the growth, and turned the lid wrong side out and then turned it over *a second time* to expose the retrotarsal folds thoroughly.

To turn the lid a second time requires a little special manipulation, and I will demonstrate to you how it is done. I direct my patient to look steadily down to the floor, and then I turn the eyelid once in the usual manner, thus exposing so much of the palpebral conjunctiva as covers the tarsal cartilage. I then press the everted lid up against the edge of the brow and turn it over a second time, as the patient rolls the eyeball strongly downward, so that one may look completely up to the bottom of the conjunctival cul-de-sac.

When I had executed this maneuver, in the case I am speaking of, I saw a foreign body about half an inch long lying close in the bottom of the conjunctival cul-de-sac, imbedded in the mucous membrane. It had caused ulceration, and from the edges of the ulcer the granulation tissue had sprouted, which was hanging behind the eyelid in a polypoid mass, the foreign body having escaped observation. When I removed the foreign body it was found to be the terminal twig of a bush, with one extremity somewhat rounded. The patient then recollected that about eighteen months previously, while going through the woods, he had run against a bush, a branch of which had grazed

the upper eyelid of that eye and broken off, leaving the mass imbedded as described above.

It is a difficult thing to restrain our tendency to make impetuous diagnosis. We like to spring at a diagnosis. We feel pleased with ourselves when we jump at a conclusion, making what is called a "snap diagnosis."

As a curious coincidence, at the very time the case just related was under observation, a case came under my care in which a foreign body was found at the bottom of the inferior cul-de-sac. The foreign body was a leaf-like spray from a pine bush. It had escaped observation for nearly a year.

The patient sent out for examination by oblique illumination has returned, and we have the report that there has been discovered what we failed to see with the unaided eye, namely, an extremely small white speck attached to the surface of the eyeball just below the axis of the cornea. The common method of removing a foreign body of that sort is to use what is called a spud. Bowman invented such an instrument. It is useful when the foreign body is imbedded to any degree in the substance of the cornea. But I would advise you to attempt first to remove the foreign body without resorting to the spud, or to a cataract needle, or any other metallic instrument. You can do so, in most instances, by using an instrument made in the following manner: Take a splinter of soft wood, pine or cedar, and whittle it into the shape of a probe, making it about the length of an ordinary dressing probe. Then take a small, loose flock of cotton, and, laying it upon your forefinger, place the pointed end of the stick in the center of it. Then turn the flock of cotton over the end of the stick, winding it round and round, so as to make it adhere firmly. If you will look at the end of such a probe with a two-inch lens you will see that it is quite rough, the fibers of cotton making a file-like extremity, in the midst of which are little interstices. As the material is soft, it will do no harm to the cornea when brushed over its surface.

When ready to remove the foreign body, have the patient rest his head against your chest, draw the upper lid up with the

forefinger of your left hand and press the lower lid down with the middle finger, and then delicately sweep the surface in which the foreign body is embedded, with the end of the cotton probe. When the foreign body is lodged in the center of the cornea, it is most important not to break up the external elastic lamina, for if you do, opacity may follow, and the slightest opacity in the center of the cornea will cause a serious diminution in the sharpness of vision.

The foreign body is now removed; and as we have handled the eye considerably, and the patient has to go some distance, we will shut the eye with a compress of absorbent cotton and a bandage, directing her to remove the dressings when she reaches home, and to bathe the eye with water at any agreeable temperature.

Sometimes slight injuries of that kind, followed by exposure, lead to considerable inflammation, and it is therefore well to guard against all possibilities by precaution in your dressings.

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A CASE OF TRUE CROUP TREATED BY LARGE DOSES OF MERCURY.

BY O. T. SCHULTZ, M. D.

The systematic use of mercury in pseudo-membranous inflammation of the upper air-passages—diphtheria and true croup—dates back to the eighteenth century, and seems to have originated with American practitioners. I am not able to state in what particular manner mercury was first used by the originators of the treatment, what results they attained, and what evil effects, if any, accompanied its methodical employment. The practice seems to have extended rapidly, as every method of treatment for which good results are claimed in severe affections has always done, and very soon we find the leading clinicians of America, England, Germany, and France lauding it highly.

